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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/889,852	07/23/2001	Yasushi Kaneko	01165.0823	1187

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EXAMINER

NGO, HUYEN LE

ART UNIT	PAPER NUMBER
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2871

DATE MAILED: 09/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

09/889,852

Applicant(s)

KANEKO ET AL. 

Examiner

Julie-Huyen L. Ngo

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) 3, 6, 8 and 9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1, 7/1 and 10/1 is/are rejected.
- 7) ☒ Claim(s) 2, 4, 5/4, 7/2, 7/4, 10/2 and 10/4 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>4 and 5</u> . | 6) <input type="checkbox"/> Other: . |

DETAILED ACTION

Election/Restrictions

Applicant's election of Sub-Species A readable on figure 1, and claims 1, 2, 4, 5, 7 and 10 is acknowledged.

Accordingly, claims 3, 6, 8 and 9 are hereby withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 8.

Priority

Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The copies of the certified copies, which have been filed in the PCT/JP00/8306 application, have been placed on placed of record in the file.

Information Disclosure Statement

The information disclosure statements filed on July 23, 2001 and October 31, 2001 (paper nos. 4 and 5) have been considered.

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Objections

Claims 5, 7 and 10 are objected to because they depend from a nonelected claim

3. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1 and 10/1 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shingo et al. (JP11119215) in view of Ogawa et al. (US6122027A).

Shingo et al. teach (figure 1) forming a liquid crystal display comprising:

- a first substrate 19 having a reflective layer and a first electrode; both a reflective layer and a first electrode integrates into the reflecting electrode 18,
- a second substrate 14 having a second electrode
- a nematic liquid crystal material with twisted orientation sandwiched between the first and second substrates
- an optical compensating element 12 constructed of a retardation film is provided on the second substrate side

wherein

Art Unit: 2871

- the liquid crystal display includes an anisotropic scattering layer 10a/10b which is provided nearer to a viewing side than to the reflective layer, and of which the straight-go transmittance varies depending on the incident angle,
- when the viewing direction of the anisotropic scattering layer is designated as the Y-axis direction, and a direction oriented substantially at right angles to the Y-axis direction is designated as the X-axis direction,
- the anisotropic scattering light is provided with a part in which light entering the anisotropic scattering layer is scattered over a wider angle along the Y-axis direction than along the X-axis direction.

However, Shingo et al. fail to disclose that the first substrate 19 having a reflective layer and a first electrode formed separately.

Ogawa et al. teach (Fig. 1, col. 2 lines 47-50) forming a first substrate 101 having a reflective layer 102 and a first electrode 105 formed separately for increasing brightness and reducing parallax reflection.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify a liquid crystal display as Shingo et al. disclosed with the first substrate having a reflective layer and a first electrode forming separately for increasing brightness and reducing parallax reflection.

Claim 7/1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shingo et al. (JP11119215) in view of Ogawa et al. (US6122027A) as applied to claim 1 above and further obvious as follow:

It is well known in the art for a liquid crystal display to use super-twisted nematic liquid crystal material, which has a twist angle that lies within a range covering 180° to 260° for widening view angle.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify a liquid crystal display as Shingo et al. disclosed with a super-twisted nematic liquid crystal material having a twist angle that lies within a range covering 180° to 260° for widening view angle.

Allowable Subject Matter

Claims 2, 4, 5/4, 7/2, 7/4, 10/2 and 10/4 are objected to as being dependent upon a rejected base claim 1, but would be allowable if rewritten to overcome the set forth above objection, and in an independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

The following claims would be allowable since there is no prior art of record that either teaches or suggests a liquid crystal display comprising:

Art Unit: 2871

Claim 2

- a straight-go transmittance of an anisotropic scattering layer has an incident angle dependence that is symmetrical about a layer normal to the anisotropic scattering layer for both the X-axis direction and the Y-axis direction,
- a maximum straight-go transmittance is substantially the same in value for both the X-axis direction and the Y axis direction

Claim 4

- a straight-go transmittance of an anisotropic scattering layer has an incident angle dependence that is asymmetrical along the X-axis direction about a layer normal to the anisotropic scattering layer and symmetrical along the Y-axis direction, and
- a straight-go transmittance of the anisotropic scattering layer in the direction of the layer normal is lower than the straight-go transmittance thereof in any oblique direction

Claims 5/4, 7/2, 7/4, 10/2 and 10/4 would be allowable since it depends on the allowable claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Art Unit: 2871

Sato et al. (US6424395B1) disclose a light scattering film including a plurality of first transparent regions each having a fibril-like cross section, and a plurality of second transparent regions differing in refractive index range from the first transparent region.

Kushida et al. (US6559909B1) disclose an anisotropic scattering film on the light emission face side of a light guide body and at the same time the light emission face side of the above-mentioned have anisotropic film.

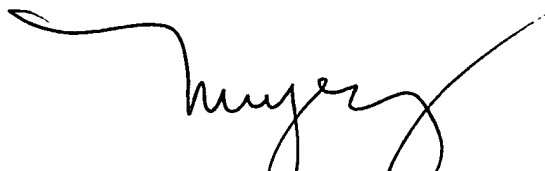
Contact Information

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Julie-Huyen L. Ngo whose telephone number is (703) 305-3508. The Examiner can normally be reached on T-Friday.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's Supervisor, Mr. Robert H. Kim can be reached at (703) 305-3492.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

September 2, 2003


Julie-Huyen L. Ngo
Patent Examiner
Art Unit 2871